



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

AUG 04 2017

Mr. Lawrence McShea, P.E.
Project Manager
Arconic, Inc.
100 Technical Drive
New Kensington, PA 15069-0001

Re.: Arconic, Inc. Massena, New York Facility, EPA I.D. No. NYD002232304 (formerly Alcoa, Inc.) Proposal for Intermediate Cover for Cell 3 of Secure Landfill

Dear Mr. McShea:

I am responding to your letter to the U.S. Environmental Protection Agency (EPA) dated July 31, 2017 (enclosed), regarding proposed activities following 2017 waste placement operations in Cell 3 of the Secure Landfill. Specifically, Arconic, Inc. proposed to use a patented spray coated cover application known as Posi-Shell as an intermediate cover on all landfill surfaces where no additional solid waste has been or will be deposited within 30 calendar days, in lieu of applicable New York State regulation which calls for a minimum of 12 inches of compacted intermediate cover. Arconic requested a response from EPA to this proposal.

EPA has consulted with the New York State Department of Environmental Conservation (NYSDEC) Region 6 management and staff on the proposal. NYSDEC granted approval to Arconic to use the Posi-Shell application as proposed via email dated August 3, 2017.

EPA has determined that Arconic's proposal to use the Posi-Shell application as an intermediate cover following 2017 waste placement operations in Cell 3 of the Secure Landfill is consistent with approval conditions identified in the November 9, 2016 letter to Arconic to re-open the existing Cell 3 for the disposal of waste containing polychlorinated biphenyls (PCBs), and with the initial EPA PCB approval for operation of Cell 3 issued on July 29, 2005.

EPA hereby approves the use of the Posi-Shell application as proposed in Arconic's July 31, 2017 letter. Given that Arconic has stated in its proposal that the Posi-Shell application has an expected life of up to one year, EPA expects that Arconic will clearly identify any additional actions necessary for continued erosion controls and dust suppression where Posi-Shell will be applied in appropriate final documents pertaining to Cell 3 operations.

Should you have any questions, please feel free to contact me at (212) 637-4109 or via email at everett.adolph@epa.gov, or Nidal Azzam, Chief of our Base Program Management Section, at (212) 637-3748, or via email at azzam.nidal@epa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read 'Adolph Everett', written in a cursive style.

Adolph Everett
Chief, Hazardous Waste Programs Branch

Enclosure

cc (w/encl.): Peter R. Taylor, NYSDEC Region 6 Headquarters

**Arconic Remediation**

Arconic Technical Center
100 Technical Drive
New Kensington, PA 15069-0001 USA

July 31, 2017

Mr. Adolph Everett
US EPA Region 2
Clean Air and Sustainability Division (CASD)
290 Broadway, Floor 25
New York, NY 10007

Subject: Arconic, Inc. Massena, New York Facility
Proposal for Intermediate Cover for Cell 3 of Secure Landfill

Dear Mr. Everett:

This letter presents Arconic's proposed materials, means and methods for installation of the temporary cover following 2017 waste placement operations in Cell 3 of the Secure Landfill in accordance with the requirements of NYCRR 360 Section 2.17 (c).

A minimum of 12 inches of compacted intermediate cover is required under NYCRR 360 Section 2.17 (c) on all landfill surfaces where no additional solid waste has been or will be deposited within 30 calendar days. Arconic proposes a patented spray coated cover application known as Posi-Shell as an intermediate cover in lieu of 12 inches of compacted soil cover.

Posi-Shell is a patented blend of clay binders, reinforcing fibers, and polymers that, when mixed with water or leachate, produces a spray-applied mortar that dries in the form of a thin durable stucco. A product cut sheet and safety data sheet (SDS) for the Posi-Shell product are attached with this letter. The spray coated cover will be applied following cessation of waste placement operations in Cell 3 prior to winterization of the Cell in 2017. Posi-Shell is applied on the exposed waste surfaces using standard hydro seed equipment. The long term Posi-Shell application which has an expected life of up to one year, limits erosion and controls dust and particulate emissions from the waste. Posi-Shell is expected to perform a similar function as the compacted intermediate soil cover while taking up less capacity in the Secure Landfill.

Arconic performs daily air monitoring at the Secure Landfill, results of which are transmitted to the NYSDEC and EPA. The results of air monitoring performed to date since re-opening of Cell 3 for waste placement in 2017 and initiation of construction activities for Cell 3 expansion indicate that levels of Carbon Monoxide (CO), Hydrogen Sulfide (H₂S), Oxygen, Lower Explosive Limit (LEL), particulate matter (PM₁₀), Volatile Organic Compounds (VOC) and total polychlorinated biphenyl (PCB) have been less than or within the corresponding threshold action levels.

Innovation, engineered.



Mr. Adolph Everett
July 31, 2017
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Arconic requests EPA's response to this proposal for intermediate cover for Cell 3 by August 14, 2017. Please contact me at (724)337-5458 if you have any questions or comments related to this submittal.

Sincerely,

Lawrence J. McShea, P.E.
Project Manager
Arconic Inc.

Attachments: Posi-Shell Product Cut Sheet
Posi-Shell Safety Data Sheet (SDS)

cc: Young Chang, USEPA
Dore LaPosta, USEPA
John Filippelli, USEPA
Nidal Azzam, USEPA
Peter Taylor, NYSDEC
David Tromp, NYSDEC
Gregg Townsend, NYSDEC
Lincoln Fancher, NYSDEC
Rachel Gardner, NYSDEC
Arunesh Ghosh, DOH
Michael Elsner, Arconic (Massena)
Tom Lightfoot, Arconic (Massena)
Michael Schultz, CDM Smith



What is it?

- Direct or partial replacement for soil intermediate cover.
- Specialized Posi-Shell® formulation with durability enhancers.
- Durable spray coating applied directly on waste or on thin soil leveling layer.

Benefits

- Increases airspace savings.
- Conserves limited soil resources.
- Lowers landfill operating costs.
- Reduces leachate generation.
- Improves landfill gas collection.
- Works in conjunction with existing daily cover process.
- Applies quickly with standard hydroseeder or LSC applicator.

Innovative Intermediate Cover System

**Regardless of your existing daily cover process...
Save more by integrating our Intermediate Cover System at your facility.**

Posi-Shell® Innovation

Posi-Shell's® unique physical properties enable the use of durability enhancers to achieve long-term coatings that are quick to apply, aesthetically pleasing, and durable enough for any state's long term cover requirements.

Our intermediate cover formulation is harder and thicker than our daily cover and will deliver significant savings in airspace and operating costs when compared to standard 12" or 18" soil intermediate cover applications.



Posi-Shell Intermediate Cover on thin soil leveling layer



**Can't do the installation yourself?
We can handle it!**

LSC Environmental Products, LLC
www.LSCenv.com • sales@LSCenv.com • 800-800-7671





Over \$10 million in projected savings on 31-acre cell.



Substantial and reliable cover that does not require removal when finished.



Can't do the installation yourself?
We can handle it!



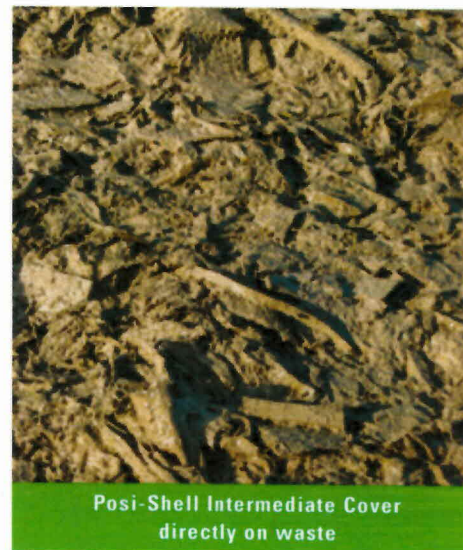
Case Study: Intermediate Cover at Hernando County Landfill

Resource conservation and increased landfill performance.

FLDEP granted Hernando County landfill approval to use Posi-Shell as a direct replacement for intermediate cover soils at their facility in Brooksville, FL.

Independent Engineering Evaluation:

- Airspace: extended landfill life > 2 years.
- Soil Conservation: > \$400,000 savings.
- Operational Costs: > \$75,000 annual reduction in fuel, maintenance, and manpower
- Reduced Leachate: less rain water entering the waste mass.
- Gas Collection: tighter "seal" improves landfill gas collection efficiency.
- **3rd Party projected savings of over \$10 million.**



Posi-Shell Intermediate Cover
directly on waste

Call us today to learn how easily you can make the switch.

For technical services or to locate your nearest Posi-Shell® dealer:



Call: **1-800-800-7671** • Email: **Sales@LSCenv.com**

Visit LSC online at: **www.LSCenv.com**

LSC Environmental Products, LLC

2183 Pennsylvania Ave., Apalachin, NY 13732

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Solutions for the Greener Good



GHS Safety Data Sheet

SDS

LSC Environmental Products, LLC

Issue Date: August 18, 2016

Posi-Shell® EC Slurry

Page 1 of 3

1 Identification

Supplier LSC Environmental Products, LLC
2183 Pennsylvania Ave
Apalachin, NY 13732
Telephone: 607-625-3050
Fax: 607-625-2688
Web: www.lscenv.com

Product Name Posi-Shell® EC Slurry
Description: Alkaline Aqueous Suspension of Sodium Montmorillonite Clay (SMC) and pozzolanic hardeners.
CAS Number: N/A
Recommended Use: Spray applied environmental coatings.

2 Hazards Identification

Route of Entry: Eye Contact, Skin Contact

Hazards:

Eye:	Acute: May cause mechanical irritation. Chronic: Eye contact with large amounts of cementitious slurry may cause effects ranging from moderate irritation to chemical burns and blindness. Such exposure requires immediate first aid and medical attention to prevent significant eye damage.
Skin:	Acute: May cause drying, thickening, or cracking of skin. Chronic: Extended exposure can result in chemical burns. Exposed persons may not feel discomfort until hours after exposure has ended and significant damage has occurred.
Ingestion:	No known health effects if ingested in small amounts. Ill effects are possible if large amounts are consumed.
Inhalation:	No known health effects.

NFPA: N/A

3 Composition / Information on Ingredients

Component	CAS#	Amount
Water	N/A	60 - 90%
Pozzolanic Hardeners*	N/A	5 - 35%
Sodium Montmorillonite Clay	N/A	< 10%

*Obtain SDS for specific hardener used.



GHS Safety Data Sheet

SDS

LSC Environmental Products, LLC
Issue Date: August 18, 2016

Posi-Shell® EC Slurry

Page 2 of 3

4 First-Aid Measures

Eye: Immediately flush eyes with water. Continue flushing for at least 15 minutes, including under eye lids, to remove all particles. Contact physician immediately.
Skin: Wash with cool water and pH neutral soap or mild detergent. Contact physician for all cases of prolonged exposure to wet cementitious slurry.
Ingestion: None known.
Inhalation: None known.

5 Fire Fighting Measures

Flammability: Non-flammable

6 Accidental Release Measures

Personal Precaution: Product is slippery.
Cleanup: Rinse thoroughly with water before product dries.

7 Handling and Storage

Handling: Personal hygiene measures, such as washing hands and face after working with materials, are recommended.
Storage: N/A

8 Exposure Controls / Personal Protection

Personal Protective Equipment:
Eye and Face Protection: Wear safety glasses with side shields or tight fitting goggles for protection from splash or spray.
Skin Protection: Wear gloves and overalls to protect skin and clothing from splash or spray.
Respiratory Protection: Generally not required; personal preference.

9 Physical and Chemical Properties

Appearance: Brown or grey viscous liquid.
Odor: Odor of wet cement or clay.
pH: 10-12 (dependent on type and quantity of hardener)
Relative Density (H₂O=1): 1.15 - 1.6
Bulk Density (at 20° C): 65 - 90 lbs/ft³
Solubility in Water: 10 - 40 % insoluble by weight (forms colloidal suspension).
Boiling Point: 212° F
Flammability: Non-flammable



GHS Safety Data Sheet

SDS

LSC Environmental Products, LLC
Issue Date: August 18, 2016

Posi-Shell® EC Slurry

Page 3 of 3

10 Stability and Reactivity

Stability:	Stable
Conditions to Avoid:	None known.
Hazardous Polymerization:	Will not occur.
Incompatible Materials:	N/A

11 Toxicological Information

No information available

12 Ecological Information

No information available.

13 Disposal Considerations

Bury in licensed landfill according to local, state, and federal regulations.

14 Transportation Information

US DOT:	N/A
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15 Regulatory Information

None of the components in this product are known to be regulated by national or international regulatory bodies.

16 Other Information

SDS Status: Revised from MSDS format in 2015 to comply with GHS requirements.

All information presented herein is believed to be accurate; however, it is the user's responsibility to determine in advance of need that the information is current and suitable for their circumstances.

No warranty or guarantee, expressed or implied, is made by LSC Environmental Products, LLC as to this information or as to the safety, toxicity, or effect of the use of this product.